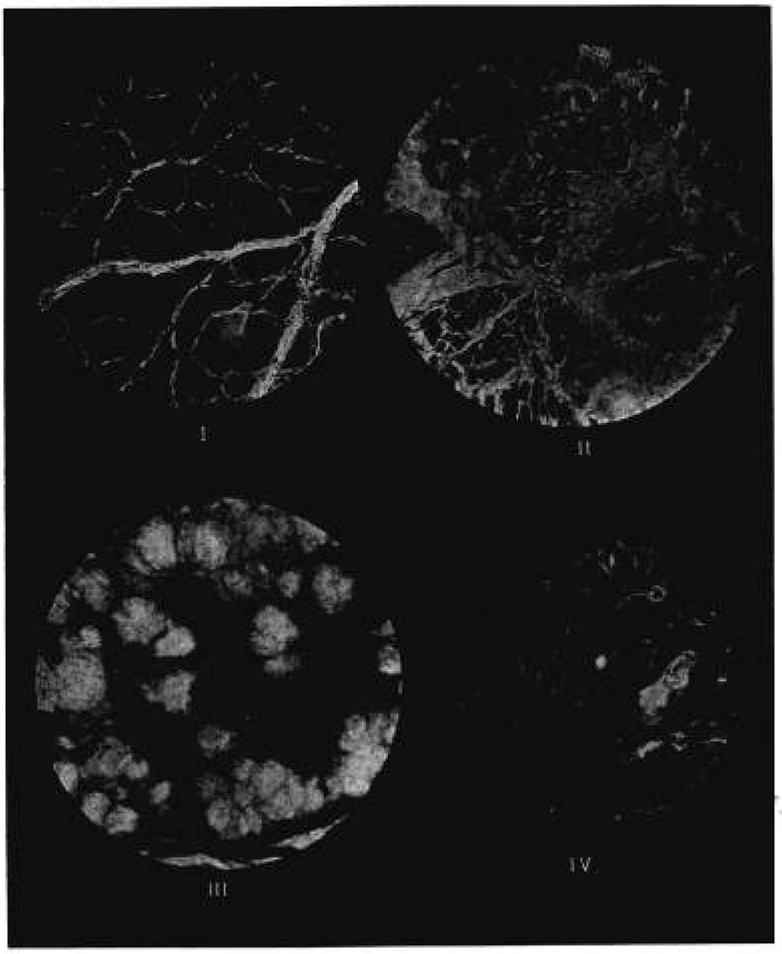
free, first, the lower internal quadrant, and later, a zone at the free border of the tract, which gradually diminishes. He next enters into a detailed analysis and refutation of Michel's theory of the total decussation and ascending degeneration. As these theories have been attacked from other quarters, and are almost universally looked upon as exploded, we will forego the reproduction of this portion of his paper. The writer then reviews the entire literature of the subject, and concludes that a definite opinion cannot as yet be formulated as to the relative position of the decussating and non-decussating fibres. The various statements only agree in this, that the non-decussating fibres course in the nerve in the form of a more or less isolated bundle. In regard to the course of the fibres in the tract, the statements are quite contradictory. The majority of authors have expressed themselves in favor of the more or less isolated course of the non-decussating fibres in the tract also. Despite the difference of opinion as to their position, it may be asserted that the course of the decussating fibres corresponds more with the free border of the tract, while the non-decussating fibres course more in the interior. The morbid specimen before us speaks in favor of the gradual intermingling of both kinds of fibres in the tractus as above mentioned. (Centrbl. f. klin. Med., No. 4, 1891.) W. M. L.

PATHOLOGICAL.

MUSCULAR ATROPHIES.

In the April number of the "Buffalo Medical and Surgical Journal," Dr. Wm. C. Krauss, of Buffalo, makes a clinico-pathological study of the different forms of muscular atrophies. Muscular atrophy is described as a retrogressive change taking place in the muscular fibre, causing a diminution in its bulk and substance, thereby rendering it incapable of performing its normal physiological function. Muscular atrophy must not be confounded with hypoplasia or aplasia, on the one hand, nor the physiological atrophies, as active atrophy, passive atrophy and local atrophies, on the other. A short historical sketch, followed by the histology and pathology of the muscular fibre follows. The pathology of the simple degenerative form and fatty infiltration and degeneration of the muscle, as in lipomatosis, is taken up at some length. The subjective and objective symptoms are carefully taken up, and particular attention is called to a tape measure applicable in these cases, de-



For Explanation of Plate See Page 357.

scribed by the author in the February number, 1890, of this Journal.

The classification, which the author states is merely a compilation after the different authorities based upon anatomo-pathological investigations, embraces all forms of atrophy, and is here given in full.

- MUSCULAR ATROPHY.
  - Physiological.
    - Active.
      - Senile wasting.
    - Passive.
      - Diminished nutrition.
      - Defective assimilation.
      - Febrile processes.
      - Direct traumatism, etc.
  - Pathological.
    - Functio-lesio.
      - Anchyloses.
      - Surgical appliances.
      - Hysterical contractures, etc.
    - Neuropathic.
      - Spontanic, secondary, traumatic, etc.
      - Toxic.
      - Infective processes.
      - Arthritic.
    - Myopathic.
      - Scapulo-humeral. (Erb's juvenile form.)
        - *a.* Facio-scapulo-humeral. (Landouzy-Dejerine.)
        - *b.* Peroneal. (Leyden's Hereditary form.)
      - Paralysis pseudo-hypertrophic.
    - Myelopathic.
      - Acute.
        - Poliomyelitis acuta infantilis.
        - Poliomyelitis acuta adultorum.
      - Chronic.
        - Protopathic.
          - Hand type. (Duchenne-Aran.)
          - Peroneal type. (Charcot Tooth.)
        - Deutero-pathic.
          - Amyotrophic lateral sclerosis.
          - Syringomyelia.
          - Gliomatous growths.
          - Locomotor ataxia.
          - Multiple sclerosis.
          - Diffuse myelitis.
          - Myelo-myelitis, etc.
    - Cerebropathic.
      - Cerebral palsies.
        - Hemiplegia.
        - Diplegia.
        - Paraplegia.

The pathological atrophies are either atrophy of inaction (functio-lesio) or tropho-neurotic. Erb's juvenile form (scapulo-humeral) is taken as the type of the myopathic atrophies, and Leyden's hereditary and the facio-scapulo-humeral types are regarded as sub-forms. In the spinal atrophies are classed the Duchenne-Aran and Charcot-Tooth types—one the hand type, the other the peroneal type.

EXPLANATION OF PLATE.

FIG. I.—Cross-section of a normal muscle. Zeiss E objective, No. 1 eyepiece.

FIG. II.—Simple degenerative atrophy of a muscular fibre. Zeiss E, No. 1 eyepiece.

FIG. III.—Fatty infiltration and degeneration of a muscular fibre. Zeiss E, No. 1 eyepiece.

FIG. IV.—Destruction of the antero-lateral group of ganglion cells, anterior cornua gray matter, spinal cord. The ganglion cells to the left (antero-median) are intact, while the antero-lateral have been replaced by cicatricial tissue. Zeiss E, No. 1.

The illustrations are reproductions of micro-photographs (by the author) taken from specimens exhibited before the club.